

tenths. The crown of the tooth presents no protuberances, but resembles that of the Sloth; the roots are hollow.*

This fossil is referred by Dr. Harlan to his *Megalonyx laqueatus*; but, pending the absence of other proof of the identity of species, in which, as may be seen by comparing fig. 2, with fig. 4, in Pl. XVII., the teeth differ widely in form, it would be obviously hazardous to adopt such an approximation on hypothetical grounds.† In order, however, to obtain more satisfactory evidence of the nature and amount of the difference between the *Megalonyx laqueatus*, and the allied animal represented by the above-described fragment of lower jaw, I wrote to my much respected friend M. LAURILLARD, requesting him to send me a sketch of the teeth in the cast of that lower jaw, which had been transmitted from New York to the Garden of Plants. With full confidence in the characteristic precision and accuracy of the drawing with which I have been obligingly favoured by M. Laurillard, I am disposed to regard the amount of difference recognizable in every tooth in the lower jaw in question (fig. 3 and 4,) as compared with the molar tooth either of *Megalonyx Jeffersonii* (fig. 1,) or *Meg^a. laqueatus* (fig. 2) to be such as to justify its generic separation from *Megalonyx* on the same grounds as *Megalonyx* is distinguished from *Megatherium*, and for the subgenus of Megatherioid Edentata, thus indicated, I would propose the name of MYLODON.‡ The species of which the fossil remains are described by Dr. Harlan may be dedicated to that indefatigable Naturalist who has contributed to natural science so much valuable information respecting the Zoology, both recent and fossil, of the North American continent. The fossil about to be described represents a second and smaller species of the same genus, and I propose to call it *Myiodon Darwinii*, in honour of its discoverer, of whose researches in the Southern division of the New World it forms one of many new and interesting fruits.

* Harlan's Medical and Physical Researches, 1835, p. 334. M. de Blainville speaks of a cast of a fragment of a lower jaw "portant encore cinq dents en série;" as having been transmitted to the Museum of the Garden of Plants from North America, together with other bones, all of which he refers to the genus *Megalonyx*; M. de Blainville does not describe these teeth, which is to be regretted, inasmuch as, if he be correct in regard to their number, which can hardly be doubted, and if he wrote with any clear and definite ideas of the generic characters of *Megalonyx*, this would indicate that *Megalonyx* differed generically both from *Megatherium* and *Myiodon* in a more important dental character than has hitherto been suspected (See "Comptes Rendus, &c." 1839, No. V. p. 142.)

† Dr. Harlan also indicates differences in certain parts of the skeleton of the New York fossils as compared with his *Meg^a. laqueatus*; but thinks them probably due to a difference in the age of the individuals: he says "There is also in Mr. Graves' collection, in New York, a tibia, nearly perfect from the right leg; the segment of a flattened sphere, on which the external condyle of the femur moves, is rather more depressed, than in the specimen from Big-bone-cave. Other marks and peculiarities are observable on this bone, not found on that of the *Megalonyx laqueatus* of Big-bone-cave, but they are probably due to a difference in the age of the individuals." Loc. cit. p. 335.

‡ *Μύλη*, *mola*; *ὀδόν*, *dens*.

This fossil was discovered in a bed of partly consolidated gravel at the base of the cliff called Punta Alta, at Bahia Blanca in Northern Patagonia: it consists of the lower jaw with the series of teeth entire on both sides: but the extremity of the symphysis, the coronoid and condyloid processes, and the angular process of the left ramus, are wanting. The teeth are composed, as in *Bradypus*, *Megatherium* and *Megalonyx*, of a central pillar of coarse ivory, immediately invested with a thin layer of fine and dense ivory, and the whole surrounded by a thick coating of cement.

In the fig. 5, Pl. XVII., the fine ivory is represented by the white striated concentric tract on the grinding surface of the teeth; it is of a yellowish-white colour in the fossil, and stands out, as an obtuse ridge, from that surface: both these conditions depend on the large proportion of the mineral to the animal constituent in this substance of the tooth. The external layer of the cement presents in the fossil the same yellowish-brown tint as the bone itself, which it so closely resembles, both in intimate structure and in chemical composition; the internal layer next the dense ivory is jet black, indicating the great proportion of animal matter originally present in this part. The central pillar of coarse ivory, which, from its more yielding texture, has been worn down into a hollow at the triturating surface of the tooth, also presents, as a consequence of the less proportion of the hardening phosphates, a darker brown colour than the external layer of the cement, or the bone itself.

The teeth are implanted in very deep sockets; about one-sixth only of the last molar projects above the alveolus; the proportion of the exposed part of the tooth increases as they are placed further forwards. The implanted part of each tooth is simple; preserving the same size and form as the projecting crown, and presenting a large conical cavity at the base, indicative of the original persistent pulp, and perpetual growth of these teeth.

The extent of the whole four alveoli is four inches, eight lines; the length of the jaw from the angle to the broken end of the symphysis is seventeen inches and a half;* from the figures it will be seen that only a small proportion of the anterior part of the jaw is lost, so that we may regard the dentigerous part of the jaw as being limited to about one-fourth of its entire length; the alveoli being nearly equidistant from the two extremities. The first and second teeth, counting backwards, are separated by an interspace of rather more than three lines; that between the second and third is one line less; the third and fourth are rather more than a line apart: from the oblique position, however, of the three hinder teeth the intervals between them appear in a side view, as in fig. 1, Pl. XIX., to be less than in reality, and the third and fourth teeth seem to touch each other.

* If the lower jaw of *Myiodon Harlani*, bears the same proportion to its teeth as does that of *Myiodon Darwinii*, it must be about two feet in length.